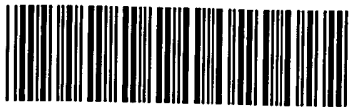
04/20



P#5

RAW SEQUENCE LISTING DATE: 04/22/2002
PATENT APPLICATION: US/10/006,252A TIME: 17:16:53

Input Set : A:\SYN-034DV.ST25.txt
Output Set: N:\CRF3\04222002\J006252A.raw

p.6

1653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 3 <110> APPLICANT: De Samblanx, Genoveva
 4       Broekaert, Willem
 5       Rees, Sarah
 7 <120> TITLE OF INVENTION: Antifungal Proteins
 9 <130> FILE REFERENCE: SYN-034DV
11 <140> CURRENT APPLICATION NUMBER: US 10/006,252A
12 <141> CURRENT FILING DATE: 2001-12-04
14 <150> PRIOR APPLICATION NUMBER: 09/077,951
15 <151> PRIOR FILING DATE: 1998-06-10
17 <150> PRIOR APPLICATION NUMBER: GB 9525474.4
18 <151> PRIOR FILING DATE: 1995-12-13
20 <150> PRIOR APPLICATION NUMBER: PCT/GB96/03065
21 <151> PRIOR FILING DATE: 1996-12-12
23 <160> NUMBER OF SEQ ID NOS: 77
25 <170> SOFTWARE: PatentIn Ver. 2.0
27 <210> SEQ ID NO: 1
28 <211> LENGTH: 36
29 <212> TYPE: DNA
30 <213> ORGANISM: Artificial Sequence
32 <220> FEATURE:
33 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
35 <400> SEQUENCE: 1
36 tatcagtcga cgcatgctat tgataagatt taaagg                              36
38 <210> SEQ ID NO: 2
39 <211> LENGTH: 37
40 <212> TYPE: DNA
41 <213> ORGANISM: Artificial Sequence
43 <220> FEATURE:
44 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
46 <400> SEQUENCE: 2
47 aataagcttg gacaagagac agaagttgtg ccaaagg                              37
49 <210> SEQ ID NO: 3
50 <211> LENGTH: 28
51 <212> TYPE: DNA
52 <213> ORGANISM: Artificial Sequence
54 <220> FEATURE:
55 <223> OTHER INFORMATION: Description of Artificial Sequence:primer
57 <400> SEQUENCE: 3
59 aaggatccct attaacaagg aaagtagc                                       28
61 <210> SEQ ID NO: 4
62 <211> LENGTH: 28
63 <212> TYPE: DNA
64 <213> ORGANISM: Artificial Sequence
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PATENT APPLICATION: US/10/006,252A TIME: 17:16:53

Input Set : A:\SYN-034DV.ST25.txt
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<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:primer

<400> SEQUENCE: 4
aatgctagct cagaagttgt gccaaagg 28

<210> SEQ ID NO: 5
<211> LENGTH: 20
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:primer

<400> SEQUENCE: 5
aggaaacagc tatgaccatg 20

<210> SEQ ID NO: 6
<211> LENGTH: 41
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:primer

<400> SEQUENCE: 6
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<210> SEQ ID NO: 7
<211> LENGTH: 24
<212> TYPE: DNA
<213> ORGANISM: Artificial Sequence

<220> FEATURE:
<223> OTHER INFORMATION: Description of Artificial Sequence:primer

<400> SEQUENCE: 7
ggaatacccg atcgagatct agga 24

<210> SEQ ID NO: 8
<211> LENGTH: 51
<212> TYPE: PRT
<213> ORGANISM: Raphanus sativus

<400> SEQUENCE: 8
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1 5 10 15
Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Asn Leu Glu Lys Ala Arg
20 25 30
His Gly Ser Cys Asn Tyr Val Phe Pro Ala His Lys Cys Ile Cys Tyr
35 40 45
Phe Pro Cys
50

<210> SEQ ID NO: 9
<211> LENGTH: 51
<212> TYPE: PRT
<213> ORGANISM: Raphanus sativus

<400> SEQUENCE: 9
Gln Lys Leu Cys Gln Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
1 5 10 15
Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Arg Leu Glu Lys Ala Arg

RAW SEQUENCE LISTING DATE: 04/22/2002
PATENT APPLICATION: US/10/006,252A TIME: 17:16:53

Input Set : A:\SYN-034DV.ST25.txt
Output Set: N:\CRF3\04222002\J006252A.raw

```
134              20                  25                  30
136 His Gly Ser Cys Asn Tyr Val Phe Pro Ala His Lys Cys Ile Cys Tyr
137          35                  40                  45
139 Phe Pro Cys
140      50
143 <210> SEQ ID NO: 10
144 <211> LENGTH: 50
145 <212> TYPE: PRT
146 <213> ORGANISM: Raphanus sativus
148 <400> SEQUENCE: 10
149 Lys Leu Cys Glu Arg Ser Ser Gly Thr Trp Ser Gly Val Cys Gly Asn
150   1               5                  10                  15
152 Asn Asn Ala Cys Lys Asn Gln Cys Ile Arg Leu Glu Gly Ala Gln His
153              20                  25                  30
155 Gly Ser Cys Asn Tyr Val Phe Pro Ala His Lys Cys Ile Cys Tyr Phe
156          35                  40                  45
158 Pro Cys
159      50
162 <210> SEQ ID NO: 11
163 <211> LENGTH: 51
164 <212> TYPE: PRT
165 <213> ORGANISM: Raphanus sativus
167 <400> SEQUENCE: 11
168 Gln Lys Leu Cys Glu Arg Ser Ser Gly Thr Trp Ser Gly Val Cys Gly
169   1               5                  10                  15
171 Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Asn Leu Glu Gly Ala Arg
172              20                  25                  30
175 His Gly Ser Cys Asn Tyr Ile Phe Pro Tyr His Arg Cys Ile Cys Tyr
176          35                  40                  45
178 Phe Pro Cys
179      50
182 <210> SEQ ID NO: 12
183 <211> LENGTH: 27
184 <212> TYPE: PRT
185 <213> ORGANISM: Brassica rapa
187 <400> SEQUENCE: 12
188 Gln Lys Leu Cys Glu Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
189   1               5                  10                  15
191 Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Asn
192              20                  25
195 <210> SEQ ID NO: 13
196 <211> LENGTH: 27
197 <212> TYPE: PRT
198 <213> ORGANISM: Brassica rapa
200 <220> FEATURE:
201 <221> NAME/KEY: SITE
202 <222> LOCATION: (11)
203 <223> OTHER INFORMATION: Xaa is a non-standard amino acid; thought to be a
204       post-translational modification of a standard
```

RAW SEQUENCE LISTING DATE: 04/22/2002
PATENT APPLICATION: US/10/006,252A TIME: 17:16:53

Input Set : A:\SYN-034DV.ST25.txt
Output Set: N:\CRF3\04222002\J006252A.raw

```
205       amino acid
207 <400> SEQUENCE: 13
208 Gln Lys Leu Cys Glu Arg Pro Ser Gly Thr Xaa Ser Gly Val Cys Gly
209   1               5                  10                  15
211 Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Arg
212              20                  25
215 <210> SEQ ID NO: 14
216 <211> LENGTH: 30
217 <212> TYPE: PRT
218 <213> ORGANISM: Brassica napus
220 <400> SEQUENCE: 14
221 Gln Lys Leu Cys Glu Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
222   1               5                  10                  15
224 Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Asn Leu Glu Lys
225              20                  25                  30
228 <210> SEQ ID NO: 15
229 <211> LENGTH: 23
230 <212> TYPE: PRT
231 <213> ORGANISM: Brassica napus
233 <400> SEQUENCE: 15
234 Gln Lys Leu Cys Glu Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
235   1               5                  10                  15
237 Asn Asn Asn Ala Cys Lys Asn
238              20
241 <210> SEQ ID NO: 16
242 <211> LENGTH: 25
243 <212> TYPE: PRT
244 <213> ORGANISM: Sinapis alba
246 <400> SEQUENCE: 16
247 Gln Lys Leu Cys Glu Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
248   1               5                  10                  15
250 Asn Asn Asn Ala Cys Lys Asn Gln Cys
251              20                  25
254 <210> SEQ ID NO: 17
255 <211> LENGTH: 26
256 <212> TYPE: PRT
257 <213> ORGANISM: Sinapis alba
259 <400> SEQUENCE: 17
260 Gln Lys Leu Cys Gln Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
261   1               5                  10                  15
263 Asn Asn Asn Ala Cys Arg Asn Gln Cys Ile
264              20                  25
267 <210> SEQ ID NO: 18
268 <211> LENGTH: 27
269 <212> TYPE: PRT
270 <213> ORGANISM: Arabidopsis thaliana
272 <400> SEQUENCE: 18
273 Gln Lys Leu Cys Glu Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
274   1               5                  10                  15
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PATENT APPLICATION: US/10/006,252A TIME: 17:16:53

Input Set : A:\SYN-034DV.ST25.txt
Output Set: N:\CRF3\04222002\J006252A.raw

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276 Asn Ser Asn Ala Cys Lys Asn Gln Cys Ile Asn
277              20                  25
280 <210> SEQ ID NO: 19
281 <211> LENGTH: 414
282 <212> TYPE: DNA
283 <213> ORGANISM: Raphanus sativus
285 <400> SEQUENCE: 19
286 gttttattag tgatcatggc taagtttgcg tccatcatcg cacttctttt tgctgctctt 60
287 gttctttttg ctgctttcga agcaccaaca atggtggaag cacagaagtt gtgcgaaagg 120
288 ccaagtggga catggtcagg agtctgtgga aacaataacg catgcaagaa tcagtgcatt 180
289 aaccttgaga aagcacgaca tggatcttgc aactatgtct tcccagctca caagtgtatc 240
291 tgctactttc cttgttaatt tatcgcaaac tctttggtga atagttttta tgtaatttac 300
292 acaaaataag tcagtgtcac tatccatgag tgattttaag acatgtacca gatatgttat 360
293 gttggttcgg ttatacaaat aaagttttat tcaccaaaaa aaaaaaaaaa aaaa       414
295 <210> SEQ ID NO: 20
296 <211> LENGTH: 51
297 <212> TYPE: PRT
298 <213> ORGANISM: Raphanus sativus
300 <400> SEQUENCE: 20
301 Gln Lys Leu Cys Gln Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
302   1               5                  10                  15
304 Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Arg Leu Glu Lys Ala Arg
305              20                  25                  30
307 His Gly Ser Cys Asn Tyr Val Phe Pro Ala His Lys Cys Ile Cys Tyr
308          35                  40                  45
310 Phe Pro Cys
311      50
314 <210> SEQ ID NO: 21
315 <211> LENGTH: 47
316 <212> TYPE: PRT
317 <213> ORGANISM: Sorghum bicolor
319 <400> SEQUENCE: 21
320 Arg Val Cys Met Lys Gly Ser Ala Gly Phe Lys Gly Leu Cys Met Arg
321   1               5                  10                  15
323 Asp Gln Asn Cys Ala Gln Val Cys Leu Gln Glu Gly Trp Gly Gly Gly
324              20                  25                  30
326 Asn Cys Asp Gly Val Met Arg Gln Cys Lys Cys Ile Arg Gln Cys
327          35                  40                  45
330 <210> SEQ ID NO: 22
331 <211> LENGTH: 51
332 <212> TYPE: PRT
333 <213> ORGANISM: Raphanus sativus
335 <400> SEQUENCE: 22
336 Gln Lys Leu Cys Met Arg Pro Ser Gly Thr Trp Ser Gly Val Cys Gly
337   1               5                  10                  15
339 Asn Asn Asn Ala Cys Lys Asn Gln Cys Ile Arg Leu Glu Lys Ala Arg
340              20                  25                  30
342 His Gly Ser Cys Asn Tyr Val Phe Pro Ala His Lys Cys Ile Cys Tyr
343          35                  40                  45
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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 04/22/2002
PATENT APPLICATION: US/10/006,252A TIME: 17:16:54

Input Set : A:\SYN-034DV.ST25.txt
Output Set: N:\CRF3\04222002\J006252A.raw

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; Xaa Pos. 11
Seq#:48; N Pos. 13,14,15
Seq#:55; N Pos. 13,14,15
Seq#:77; Xaa Pos. 1